

NON-PUBLIC?: N
ACCESSION #: 9303250145
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Sequoyah Nuclear Plant, Unit 1 PAGE: 1 OF 05

DOCKET NUMBER: 05000327

TITLE: Reactor Trip as a Result of an Inadvertent Trip of the
Exciter Field Breaker
EVENT DATE: 02/18/93 LER #: 93-003-00 REPORT DATE: 03/18/93

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
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COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On February 18, 1993, at 1336 Eastern standard time, with Unit 1 operating at approximately 100 percent power, a reactor trip occurred as a result of the exciter field breaker opening. The breaker opened when a senior reactor operator training instructor inadvertently actuated the trip latch on the exciter field breaker during a training exercise. The unit responded as expected following the trip and the Operations crew stabilized the unit in hot standby conditions. The reactor trip occurred as a result of the instructor failing to evaluate the risks and consequences associated with conducting training activities using operating plant components. Training on energized and/or sensitive equipment has been stopped until a policy on utilizing energized and/or sensitive equipment is established. An interim policy on opening cabinets for energized equipment has been developed and communicated to site employees. Additionally, appropriate disciplinary action has been taken.

END OF ABSTRACT

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I. PLANT CONDITIONS

Unit 1 was in power operation at approximately 100 percent reactor thermal power.

II. DESCRIPTION OF EVENT

A. Event

On February 18, 1993, at 1336 Eastern standard time (EST), a turbine trip followed by a reactor trip occurred as a result of the main generator exciter field breaker (EIIS Code TB) opening. The breaker opened when a senior reactor operator (SRO) training instructor inadvertently actuated the trip latch on the exciter field breaker during a training exercise. The unit responded as expected following the trip and the Operations crew stabilized the unit in hot

B. Inoperable Structures, Components, or Systems That Contributed to the Event

None.

C. Dates and Approximate Time of Major Occurrences

1. February 18, 1993 An SRO instructor was conducting training on electrical equipment for assistant unit operators (AUOs).

2. February 18, 1993 The SRO instructor requested that one at 1330 EST of the AUOs contact the main control room (MCR) unit operator/reactor operator and ask if they could look at the exciter field breaker. The AUO received permission from the MCR, and the instructor opened the field breaker door. After shining his flashlight into the cabinet, he started explaining how the breaker was latched when in both the test and connect position.

3. February 18, 1993 While talking about the trip latch and at 1336 EST pointing to it at the same time, he moved the latch down slightly. This caused the interlock trip latch to open the Unit 1 main generator exciter field breaker.

4. February 18, 1993 The turbine tripped on an electrical at 1336 EST relay protection signal and resulted in a subsequent reactor trip.

5. February 18, 1993 The unit was stabilized in Mode 3. at 1351 EST

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E. Method of Discovery

The trip was discovered during routine observations of plant parameters by MCR Operations personnel.

F. Operator Actions

When the trip occurred, the MCR operators immediately used emergency procedures to diagnose the event and mitigate consequences. The unit was stabilized in accordance with procedures.

G. Safety System Responses

As designed, the reactor tripped following the turbine trip. Safety systems performed as designed.

III. CAUSE OF EVENT

A. Immediate Cause

The turbine/reactor tripped as a result of an inadvertent trip of the exciter field breaker.

B. Root Cause

The turbine/reactor trip occurred as a result of the instructor failing to evaluate the risks and consequences associated with conducting training activities using operating plant

components. Also, there is no formal plant policy for evaluating the risks and consequences associated with performing activities using operating plant components.

C. Contributing Factors

The control room unit operator/reactor operator did not specifically instruct or provide guidance regarding the potential risks associated with the breaker located inside the cabinet to the AUO requesting permission to enter the cabinet.

IV. ANALYSIS OF EVENT

Plant equipment required to operate after the reactor tripped performed as expected, and plant parameters were within expected ranges. However, the steam generator power-operated relief valves did lift as a result of the loss of condenser circulating water. There were no challenges to the safety analysis requirements. Therefore, the event did not adversely affect the health and safety of plant personnel or the public.

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V. CORRECTIVE ACTION

A. Immediate Corrective Actions

After the reactor tripped, the MCR staff responded as prescribed by emergency procedures. They promptly diagnosed the plant conditions and took actions necessary to stabilize the unit in a safe condition.

Training on energized and/or sensitive equipment has been stopped until a policy on energized and/or sensitive equipment is established.

An interim policy on opening cabinets for energized equipment has been developed and communicated to site employees.

B. Corrective Actions to Prevent Recurrence

1. A plant policy on activities associated with sensitive equipment will be established.
2. Appropriate disciplinary action has been taken.

VI. ADDITIONAL INFORMATION

A. Failed Components

None.

B. Previous Similar Events

A review of previously reported events identified nine events (LERs 327/86025, 327/86041, 327/85023, 327/84055, 327/87060, 327/89013, 327/90002, 327/91011, and 328/92011) where it appears that the risk associated with the activity being performed was not properly evaluated. Each of the events involved activities associated with sensitive equipment or being performed near sensitive equipment. The following are examples of the above events: (1) passing equipment up and down a ladder next to a breaker associated with safety-related equipment with the opposite train of equipment inoperable, (2) allowing a radio inside containment during power operation, (3) use of the wrong tool inside an energized compartment, and (4) performance of an inspection activity that required minor component manipulation on energized equipment. The corrective actions for the events were directed toward the type of activity being performed; therefore, the corrective actions could not have prevented this event.

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C. Commitments

1. A plant policy on activities associated with sensitive equipment will be established by June 7, 1993.

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Section "Commitment Tracking Load Sheet" omitted.

*** END OF DOCUMENT ***
